CLASS TITLE: SENIOR PROGRAMMER/ANALYST-EXCLUDED

CHARACTERISTICS OF THE CLASS

Under general supervision, revises or develops existing and proposed applications for distributed and centralized processing systems, and performs related duties as required

ESSENTIAL DUTIES

- Analyzes current business operations by interviewing users and observing manual and automated procedures
- Analyzes business information problems using charts and diagrams
- Prepares program specifications, logic flowcharts, and diagrams indicating mathematical computations and sequence of computer operations necessary to process and output data in the required formats
- Codes, tests, debugs, and installs difficult programs for both centralized and distributed computer systems
- Modifies and/or maintains existing programs and databases to conform to business requirements or systems changes
- Provides technical information on current systems to software vendors contracted to design major computer systems
- Monitors applications to determine conformance with user requirements
- Trains user staff on systems operations, software and procedures
- Prepares documentation on program coding and testing processes
- Troubleshoots and corrects software malfunctions
- Configures software applications for operation on existing hardware
- Writes computer programs

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's degree in Computer Sciences, Information Technology/Systems, or a directly related field, plus two years of experience in the design and development of computerized systems, or an equivalent combination of education, training and experience.

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Personal computers and peripheral equipment (e.g., desktop computer, laptop computer, hand-held computer, computer terminals, modems, scanner)
- Client/server computer
- Local area/wide area communications network
- Micro and mini computers

PHYSICAL REQUIREMENTS

- Ability to operate a personal computer and related equipment

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *applicable computer software packages
- *methods, practices, and procedures for analyzing and resolving computer-related problems
- *commercial computer systems applications and their capabilities
- *methods and techniques of database analysis and design
- *computer operating systems
- *programming logic, data manipulation, and integrated environments

Some knowledge of:

- *computer systems management
- *IT systems development practices, standards, and procedures

Knowledge of applicable City and department policies, procedures, rules and regulations

Other knowledge as required for successful performance in the Programmer/Analyst class

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, taking time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- SYSTEMS EVALUATION - Identify measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system
- PROGRAMMING - Write computer programs for various purposes
- QUALITY CONTROL ANALYSIS - Conduct tests and inspections of products, services, or processes to evaluate quality or performance
- TECHNOLOGY DESIGN – Generate or adapt equipment and technology to serve users needs

Other skills as required for successful performance in the Programmer/Analyst class

<u>Abilities</u>

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE - Communicate information and ideas in writing so others will understand
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- ORGANIZE INFORMATION - Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations)
- REASON MATHEMATICALLY – Choose the right mathematical methods or formulas to solve a problem

Other abilities as required for successful performance in the Programmer/Analyst class

<u>Other Work Requirements</u>

- INITIATIVE - Demonstrate willingness to take on job challenges
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

Other characteristics as required for successful performance in the Programmer/Analyst class

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
July, 2019